



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,720	07/31/2003	Seong Ho Kang	YHK-0114	9367
34610	7590	09/09/2004	EXAMINER	
FLESHNER & KIM, LLP			VU, DAVID HUNG	
P.O. BOX 221200			ART UNIT	
CHANTILLY, VA 20153			PAPER NUMBER	

2828

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,720

Applicant(s)

KANG ET AL.

Examiner

David Vu

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-10 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claim 3 is objected to because of the following informalities: lines 2-3, "going the" should have been ---going from the---. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 5-6 and 9-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 5 and 9 recite a sustain period of the first sustain pulse is longer than that of the second sustain pulse and vice versa. However, the specification only describes pulses with different widths are being applied to the electrodes, not the difference in sustain periods.

Claims 6 and 10 are rejected by ~~the~~ virtue of their dependency on claims 5 and 9.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art figures 2-4 and specification pages 1-7 in view of Lim et al U.S. Pat No 6,621,230.

Applicant's admitted prior art essentially discloses a plasma display panel having first Y and second Z row electrodes and a heat electrode X and including a sustain period for implementing a gray scale depending upon a discharge frequency, inherently comprising the step of alternately applying first and second sustain pulses SUS1,SUS2 during the sustain period to the first and second row electrodes. Applicant's admitted prior art does not explicitly disclose the sustain pulses having different widths. Lim et al disclose a plasma display panel having sustain pulses SUSP1,SUSP2 in sustain periods of SF1 and SF5 with different widths (figure 8, column 7). Thus, it would have been obvious to one having ordinary skill in the art at the time of applicant's claimed invention was made to have provided sustain pulses having different widths so as to improve picture quality.

Regarding claims 2-3, page 2 discloses the resistance going from the first driver 32 into the first row electrode is larger than a resistance going from the second driver 34 into the second row electrode.

Regarding claim 4, figure 8 shows a width (of the very first pulse) of the first sustain pulse SUSP1 is longer than that of the second sustain pulse SUSP2.

Regarding claim 7, it would have been an obvious matter of design consideration to employ the resistance going from the second driver into the second row electrode is larger than a resistance going from the first driver into the first row electrode since applicant has not disclosed that this larger resistance solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with resistance going from the second driver into the second row electrode is larger than a resistance going from the first driver into the first row electrode.

Allowable Subject Matter

7. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 6 and 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

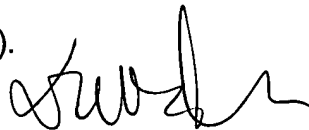
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent by Moon, U.S. Pat No 6,188,374 is cited as showing a general state of the display art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (571) 272-1831.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Vu
Primary Examiner
Art Unit 2828

dv